

# **Advancement Handbook for Aviation Electronics Technician (Intermediate Maintenance)**

## **PREFACE**

The purpose of the Advancement Handbook is to help you focus your preparation for Navywide advancement-in-rating examinations. The bibliographies (BIBs) together with this handbook form a comprehensive examination study package. Since this handbook provides skill and knowledge components for each paygrade of the Aviation Electronics Technician (AT[I]) rating, it helps you concentrate your study on those areas that may be tested. This feature will help you get the most out of your study time.

Each page in Parts 1 through 4 of this Advancement Handbook presents general skill areas, specific skill areas, the knowledge factors associated with each skill area, the pertinent references that address each skill, and the subject areas that may be covered on the examination. The skill statements describe the skills you are expected to perform for each paygrade. The skill statements are cumulative; that is, you are responsible for the skills for the paygrade you are competing for, your present paygrade, and all paygrades below.

Although this handbook is very comprehensive, it cannot cover all the tasks performed in the rating. As a result, the advancement examinations may contain questions more detailed than described in the “*Exam Expectations*” section of the skill areas.

Remember that advancement competition is keen, so your keys to advancement include not only comprehensive advancement examination study but also sustained superior performance.

Prepared by  
Navy Advancement Center Department,  
Naval Education and Training Professional  
Development and Technology Center

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## Part 1

### Advancement Handbook for AT3(I)

## Advancement Handbook for AT3(I)

General AT(I) <i>Skill Area</i>	<b>Avionics Systems Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain control indicator systems
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Theory of operation of control indicator systems</li> <li>• Operating parameters of control indicator systems</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Applicable maintenance instruction manuals (MIMs)</li> <li>• Aviation Electronics Technician 3, Chapter 3 (NAVEDTRA 12329)</li> <li>• Navy Electricity and Electronics Training Series, Module 15, Chapters 1 through 4, (NAVEDTRA 172-15-00-98)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	<p>You can expect questions about the maintenance of control indicator systems. Questions will be of a general nature or specific to a certain type of system. You also will be questioned on theory of operation, and operating parameters of basic synchros and servomechanisms.</p>

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General AT(I) <i>Skill Area</i>	<b>Avionics Systems Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain data display systems
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Theory of operation of data display systems</li> <li>• Operating parameters of data display systems</li> <li>• Location of modules/subassemblies of data display systems</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Applicable maintenance instruction manuals (MIMs)</li> <li>• Aviation Electronics Technician 3, Chapter 5 (NAVEDTRA 12329)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the maintenance of data display systems. Questions will be of a general nature or specific to a certain type of data display system. You also will be questioned on theory of operation, operating parameters, and location of modules and subassemblies of data display systems.

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General AT(I) <i>Skill Area</i>	<b>Avionics Systems Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain data link systems
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Theory of operation of data link systems</li> <li>• Operating parameters of data link systems</li> <li>• Location of modules/subassemblies of data link systems</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Applicable maintenance instruction manuals (MIMs)</li> <li>• Aviation Electronics Technician 3, Chapter 5 (NAVEDTRA 12329)</li> <li>• Navy Electricity and Electronics Training Series, Module 17, Chapter 5 (NAVEDTRA 172-17-00-98)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the maintenance of data link systems. Questions will be of a general nature. You also will be questioned on theory of operation, operating parameters, and location of modules and subassemblies of data link systems.

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General AT(I) <i>Skill Area</i>	<b>Avionics Systems Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain digital data systems
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Theory of operation of digital data systems</li> <li>• Operating parameters of digital data systems</li> <li>• Location of modules/subassemblies of digital data systems</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Applicable maintenance instruction manuals (MIMs)</li> <li>• Aviation Electronics Technician 3, Chapter 4 (NAVEDTRA 12329)</li> <li>• Navy Electricity and Electronics Training Series, Module 13, Chapters 1 through 3 (NAVEDTRA 172-13-00-98)</li> <li>• Navy Electricity and Electronics Training Series, Module 22, Chapters 1 through 4 (NAVEDTRA 172-22-00-98)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the maintenance of digital data systems. Questions will be of a general nature. You also will be questioned on theory of operation, operating parameters, and location of modules and subassemblies of digital data systems.



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General AT(I) <i>Skill Area</i>	<b>Avionics Systems Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain integrated electronics systems
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Theory of operation of integrated electronics systems</li> <li>• Operating parameters of integrated electronics systems</li> <li>• Location of modules/subassemblies of integrated electronics systems</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Applicable maintenance instruction manuals (MIMs)</li> <li>• Aviation Electronics Technician 3, Chapters 2 and 5 (NAVEDTRA 12329)</li> <li>• Navy Electricity and Electronics Training Series, Module 24, Chapters 1 through 3 (NAVEDTRA 172-24-00-98)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the maintenance of integrated electronics systems, which will include infrared, laser, and fiber optic systems. Questions will be of a general nature or specific to a certain type of system. You also will be questioned on theory of operation, operating parameters, and location of modules and subassemblies of integrated electronics systems.

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General AT(I) <i>Skill Area</i>	<b>Avionics Systems Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain radar systems
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Theory of operation of radar systems</li> <li>• Operating parameters of radar systems</li> <li>• Location of modules/subassemblies of radar systems</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Applicable maintenance instruction manuals (MIMs)</li> <li>• Aviation Electronics Technician 3, Chapter 5 (NAVEDTRA 12329)</li> <li>• Navy Electricity and Electronics Training Series, Module 11, Chapters 1 through 3 (NAVEDTRA 172-11-00-98)</li> <li>• Navy Electricity and Electronics Training Series, Module 13, Chapter 2 (NAVEDTRA 172-13-00-98)</li> <li>• Navy Electricity and Electronics Training Series, Module 18, Chapters 1 through 4 (NAVEDTRA 172-18-00-98)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the maintenance of radar systems. Questions will be of a general nature or specific to a certain type of radar system. You also will be questioned on theory of operation, operating parameters, and location of modules and subassemblies of radar systems.

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General AT(I) <i>Skill Area</i>	<b>Avionics Systems Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain identification friend or foe (IFF) systems
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Theory of operation of IFF systems</li> <li>• Operating parameters of IFF systems</li> <li>• Location of modules/subassemblies of IFF systems</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Applicable maintenance instruction manuals (MIMs)</li> <li>• Aviation Electronics Technician 3, Chapter 5 (NAVEDTRA 12329)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the maintenance of IFF systems. Questions will be of a general nature. You also will be questioned on theory of operation, operating parameters, and location of modules and subassemblies of IFF systems.

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General AT(I) <i>Skill Area</i>	<b>Avionics Systems Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain high frequency (HF), very high frequency (VHF), and ultra high frequency (UHF) radio systems
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Theory of operation of HF, VHF, and UHF radio systems</li> <li>• Operating parameters of HF, VHF, and UHF radio systems</li> <li>• Location of modules/subassemblies of HF, VHF, and UHF radio systems</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Applicable maintenance instruction manuals (MIMs)</li> <li>• Aviation Electronics Technician 3, Chapter 5 (NAVEDTRA 12329)</li> <li>• Navy Electricity and Electronics Training Series, Module 12, Chapters 1 through 3 (NAVEDTRA 172-12-00-98)</li> <li>• Navy Electricity and Electronics Training Series, Module 17, Chapters 1 through 3 (NAVEDTRA 172-17-00-98)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the maintenance of HF, VHF, and UHF radio systems. Questions will be of a general nature or specific to a certain type of radio communication. You also will be questioned on theory of operation, operating parameters, and location of modules and subassemblies of HF, VHF, and UHF radio systems.

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General AT(I) <i>Skill Area</i>	<b>Avionics Systems Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain interior communication systems (ICSs)
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Theory of operation of ICSs</li> <li>• Operating parameters of ICSs</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Applicable maintenance instruction manuals (MIMs)</li> <li>• Aviation Electronics Technician 3, Chapter 5 (NAVEDTRA 12329)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the maintenance of ICSs. Questions will be of a general nature. You also will be questioned on theory of operation and operating parameters of ICSs.

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General AT(I) <i>Skill Area</i>	<b>Avionics Systems Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain navigational systems
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Theory of operation of navigational systems</li> <li>• Operating parameters of navigational systems</li> <li>• Location of modules/subassemblies of navigational systems</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Applicable maintenance instruction manuals (MIMs)</li> <li>• Aviation Electronics Technician 3, Chapters 2 and 5 (NAVEDTRA 12329)</li> <li>• Navy Electricity and Electronics Training Series, Module 10, Chapters 1 through 4 (NAVEDTRA 172-10-00-98)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the maintenance of ADF, VHF omni-directional (VOR), TACAN, and doppler navigational systems. Questions will be of a general nature or specific to a certain type of equipment. You also will be questioned on theory of operation, operating parameters, and location of modules and subassemblies of navigational systems.

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General AT(I) <i>Skill Area</i>	<b>Avionics Systems Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain anti-submarine warfare (ASW) systems
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Theory of operation of ASW systems</li> <li>• Operating parameters of ASW systems</li> <li>• Location of modules/subassemblies of ASW systems</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Applicable maintenance instruction manuals (MIMs)</li> <li>• Aviation Electronics Technician 3, Chapter 5 (NAVEDTRA 12329)</li> <li>• Navy Electricity and Electronics Training Series, Module 22, Chapter 2 (NAVEDTRA 172-22-00-98)</li> <li>• Navy Electricity and Electronics Training Series, Module 23, Chapters 1 through 8 (NAVEDTRA 172-23-00-98)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the maintenance of magnetic anomaly detection (MAD), sonobuoys, associated receivers, and recorders of ASW systems. Questions will be of a general nature or specific to a certain system. You also will be questioned on theory of operation, operating parameters, and location of modules and subassemblies of ASW systems.

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General AT(I) <i>Skill Area</i>	<b>Electrical and Electronic Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform voltage, current, and resistance measurements
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Theory of matter, energy, magnetism, and electricity</li> <li>• Circuit control and protection devices</li> <li>• Interpretation of charts, diagrams, and schematics</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Applicable maintenance instruction manuals (MIMs)</li> <li>• Aviation Electronics Technician 3, Chapters 1, 7, and Appendix II (NAVEDTRA 12329)</li> <li>• Navy Electricity and Electronics Training Series, Module 1, Chapters 1 and 3 (NAVEDTRA 172-01-00-98)</li> <li>• Navy Electricity and Electronics Training Series, Module 2, Chapters 1 through 5 (NAVEDTRA 172-02-00-98)</li> <li>• Navy Electricity and Electronics Training Series, Module 3, Chapters 1 through 6 (NAVEDTRA 172-03-00-98)</li> <li>• Navy Electricity and Electronics Training Series, Module 4, Chapters 1 through 3 (NAVEDTRA 172-04-00-98)</li> <li>• Navy Electricity and Electronics Training Series, Module 16, Chapters 1 through 6 (NAVEDTRA 172-16-00-98)</li> <li>• Navy Electricity and Electronics Training Series, Module 19, Chapter 1 (NAVEDTRA 172-19-00-98)</li> <li>• Navy Electricity and Electronics Training Series, Module 20, Chapters 1 through 5 (NAVEDTRA 172-20-00-98)</li> </ul>



<p><i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:</p>	<p>You can expect questions on the theory of matter, energy, magnetism, and electricity. Questions will be of a general nature or specific to a certain type of circuit. You will also be questioned on circuit control and protection devices, interpreting charts, diagrams, schematics, and the electronic component color-coding system.</p>
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General AT(I) <i>Skill Area</i>	<b>Electrical and Electronic Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Isolate fault to a defective component
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Theory of operation of solid state devices, semiconductors, integrated circuits, and discrete components</li> <li>• Appropriate test methods and practices</li> <li>• Use of applicable test equipment</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Applicable maintenance instruction manuals (MIMs)</li> <li>• Navy Electricity and Electronics Training Series, Module 6, Chapters 1 through 3 (NAVEDTRA 172-06-00-98)</li> <li>• Navy Electricity and Electronics Training Series, Module 7, Chapters 1 through 4 (NAVEDTRA 172-07-00-98)</li> <li>• Navy Electricity and Electronics Training Series, Module 8, Chapters 1 through 3 (NAVEDTRA 172-08-00-98)</li> <li>• Navy Electricity and Electronics Training Series, Module 14, Chapter 1 (NAVEDTRA 172-14-00-98)</li> <li>• Navy Electricity and Electronics Training Series, Module 16, Chapters 1, 2, 4, and 5 (NAVEDTRA 172-16-00-98)</li> <li>• Navy Electricity and Electronics Training Series, Module 21, Chapters 1 and 2 (NAVEDTRA 172-21-00-98)</li> </ul>

<p><i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:</p>	<p>You can expect questions about theory of operation of solid state devices, semiconductors, integrated circuits, and discrete components. Questions will be of a general nature or specific to a certain operating characteristic. You also will be questioned on testing methods and practices while using test equipment to isolate to a defective component.</p>
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General AT(I) <i>Skill Area</i>	<b>Electrical and Electronic Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Comply with electrostatic discharge sensitive (ESDS) program
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Identification of ESDS devices</li> <li>• Procedures for maintaining ESDS safe areas</li> <li>• Procedures for the handling and testing of ESDS devices</li> <li>• Procedures for packaging and labeling of ESDS devices</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Applicable maintenance instruction manuals (MIMs)</li> <li>• Aviation Electronics Technician 3, Chapter 6 (NAVEDTRA 12329)</li> <li>• Aviation Maintenance Ratings, Chapter 5 (NAVEDTRA 12017)</li> <li>• Avionic Cleaning and Corrosion Prevention/Control, Chapter 9 (NAVAIR 16-1-540)</li> <li>• Naval Aviation Maintenance Program (NAMP), Volume V, Chapter 22 (OPNAVINST 4790.2)</li> <li>• Navy Electricity and Electronics Training Series, Module 14, Chapter 3 (NAVEDTRA 172-14-00-98)</li> <li>• Navy Electricity and Electronics Training Series, Module 21, Chapter 2 (NAVEDTRA 172-21-00-98)</li> <li>• Standard Maintenance Practices Miniature/Microminiature (2M) Electronics Assembly Repair, Chapter 5 (NAVAIR 01-1A-23)</li> </ul>

<p><i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:</p>	<p>You can expect questions about the ESDS program. Questions will be of a general nature or specific to a certain procedure involved in the ESDS program. In addition, you will be questioned on handling and testing of ESDS devices and the precautions when packaging and labeling these devices.</p>
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General AT(I) <i>Skill Area</i>	<b>Electrical and Electronic Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform waveform analysis
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Interpretation of waveforms</li> <li>• Identification of waveform generating circuits</li> <li>• Identification of causes of abnormal waveforms</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Applicable maintenance instruction manuals (MIMs)</li> <li>• Aviation Electronics Technician 3, Chapter 8 (NAVEDTRA 12329)</li> <li>• Navy Electricity and Electronics Training Series, Module 9, Chapters 1 through 4 (NAVEDTRA 172-09-00-98)</li> <li>• Navy Electricity and Electronics Training Series, Module 21, Chapter 5 (NAVEDTRA 172-21-00-98)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	<p>You can expect questions on performing waveform analysis. Questions will be of a general nature or specific to a certain type of waveform generating circuit. You will also be questioned on identifying a variety of wave generating and wave shaping circuits. In addition, you will be questioned on phase, time, frequency, amplitude, and harmonics of observed waveforms.</p>

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General AT(I) <i>Skill Area</i>	<b>Electrical and Electronic Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Comply with the miniature/microminiature (2M) repair program
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Techniques of soldering</li> <li>• Procedures for de-soldering and re-soldering discrete components</li> <li>• Techniques used in fabricating, repairing, and maintaining electrical cables and connectors</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Applicable maintenance instruction manuals (MIMs)</li> <li>• Aviation Electronics Technician 3, Chapters 6 and 7 (NAVEDTRA 12329)</li> <li>• Naval Aviation Maintenance Program (NAMP), Volume V, Chapter 23 (OPNAVINST 4790.2)</li> <li>• Installation Practices Aircraft Electric and Electronic Wiring, Work Packages 3 through 27 (NAVAIR 01-1A-505)</li> <li>• Navy Electricity and Electronics Training Series, Module 14, Chapters 1 through 3 (NAVEDTRA 172-14-00-98)</li> <li>• Standard Maintenance Practices Miniature/Microminiature (2M) Electronics Assembly Repair, Chapters 6, 7, and 10 (NAVAIR 01-1A-23)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on soldering techniques. Questions will be of a general nature. You will also be questioned on techniques used in fabricating, repairing, and maintaining electrical cables and connectors.

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General AT(I) <i>Skill Area</i>	<b>Electrical and Electronic Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Comply with the corrosion prevention and control program
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Theory of corrosion</li> <li>• Identification of types of corrosion</li> <li>• Corrosion prevention and treatment procedures</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Aircraft Weapons System Cleaning and Corrosion Control, Chapters 1 through 9 and Appendixes A and B, (NAVAIR 01-1A-509)</li> <li>• Applicable maintenance instruction manuals (MIMs)</li> <li>• Aviation Maintenance Ratings, Chapter 4 (NAVEDTRA 12017)</li> <li>• Avionic Cleaning and Corrosion Prevention/Control, Chapters 1 through 10 and Appendixes A and B (NAVAIR 16-1-540)</li> <li>• Naval Aviation Maintenance Program (NAMP), Volume V, Chapter 14 (OPNAVINST 4790.2)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the corrosion prevention and control program. Questions will be of a general nature. You will also be questioned on the theory of corrosion, identification, types, prevention, and treatment.



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General AT(I) <i>Skill Area</i>	<b>Electrical and Electronic Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain antennas and waveguides
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Theory of operation of antennas and waveguides</li> <li>• Operating parameters of antennas and waveguides</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Applicable maintenance instruction manuals (MIMs)</li> <li>• Navy Electricity and Electronics Training Series, Module 10, Chapters 1 through 4 (NAVEDTRA 172-10-00-98)</li> <li>• Navy Electricity and Electronics Training Series, Module 11, Chapters 1 through 3 (NAVEDTRA 172-11-00-98)</li> <li>• Navy Electricity and Electronics Training Series, Module 18, Chapter 3 (NAVEDTRA 172-18-00-98)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the maintenance of antennas and waveguides. Questions will be of a general nature or specific to a certain configuration. You will also be questioned on the theory of operation and operating parameters of antennas and waveguides.

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General AT(I) <i>Skill Area</i>	<b>Test Equipment</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain test equipment
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Operating parameters and use of test equipment and automatic test equipment (ATE)</li> <li>• Procedures for repairing test equipment</li> <li>• Identification of different types of calibration labels</li> <li>• Identification of general Metrology Automated System for Uniform Recall and Reporting (MEASURE) formats</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Applicable maintenance instruction manuals (MIMs)</li> <li>• Metrology Automated System for Uniform Recall and Reporting (MEASURE) Users Manual, Appendix J (OPNAV Manual OP43P6)</li> <li>• Naval Aviation Maintenance Program (NAMP), Volume V, Chapter 19 (OPNAVINST 4790.2)</li> <li>• Navy Electricity and Electronics Training Series, Module 16, Chapters 1 through 6 (NAVEDTRA 172-16-00-98)</li> <li>• Navy Electricity and Electronics Training Series, Module 21, Chapters 1 through 5 (NAVEDTRA 172-21-00-98)</li> </ul>

<p><i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:</p>	<p>You can expect questions about the maintenance of test equipment and ATE. Questions will be of a general nature or specific to a certain type of test equipment. You also will be questioned on the use and repair of test equipment. In addition, you can expect questions on meter movements, calibration labels, and applicable MEASURE formats.</p>
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General AT(I) <i>Skill Area</i>	<b>Quality Assurance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Comply with foreign object damage and tool control programs
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Purpose and scope of foreign object damage and tool control programs</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Aviation Maintenance Ratings, Chapter 5 (NAVEDTRA 12017)</li> <li>• Naval Aviation Maintenance Program (NAMP), Volume V, Chapters 12 and 13 (OPNAVINST 4790.2)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the purpose and scope of the foreign object damage and tool control programs. Questions will be of a general nature. You will also be questioned on tool control inventories, identification markings, inspecting tool containers, and on searching for missing tools. In addition, you will be questioned on the procedures for preparing missing and broken tool reports.

## Advancement Handbook for AT3(I)

General AT(I) <i>Skill Area</i>	<b>Automated Information Operations</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain computer systems
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Theory of operation of computer systems</li> <li>• Operating parameters of computers</li> <li>• Classification of computers</li> <li>• Uses of computers</li> <li>• Interpreting computer languages</li> <li>• Location of hardware</li> <li>• Storage methods</li> <li>• Programming techniques</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Applicable maintenance instruction manuals (MIMs)</li> <li>• Aviation Electronics Technician 3, Chapter 4 (NAVEDTRA 12329)</li> <li>• Navy Electricity and Electronics Training Series, Module 13, Chapters 1 through 3 (NAVEDTRA 172-13-00-98)</li> <li>• Navy Electricity and Electronics Training Series, Module 22, Chapters 1 through 4 (NAVEDTRA 172-22-00-98)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the maintenance of computer systems. Questions will be of a general nature or specific to a certain type of computer system. You also will be questioned on the theory of operation, classes of computers, and uses of computers. In addition, you will be questioned on computer languages, programming, hardware, storage methods, number systems, and digital logic circuits.

## Advancement Handbook for AT3(I)

General AT(I) <i>Skill Area</i>	<b>Logistics/Technical Administration</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain individual component repair lists (ICRL)
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Purpose and scope of the ICRL</li> <li>• Procedures for reviewing ICRL</li> <li>• Procedure for updating ICRL</li> <li>• Identification of ICRL capability codes</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Applicable maintenance instruction manuals (MIMs)</li> <li>• Aviation Maintenance Ratings, Chapter 3 (NAVEDTRA 12017)</li> <li>• Naval Aviation Maintenance Program (NAMP), Volume I, Chapter 18 (OPNAVINST 4790.2)</li> <li>• Naval Aviation Maintenance Program (NAMP), Volume V, Chapter 21 (OPNAVINST 4790.2)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the ICRL program. Questions will be of a general nature or specific to a certain function. You also will be questioned on the purpose, review requirements, updating procedures, and capability codes of the ICRL program.

## Advancement Handbook for AT3(I)

General AT(I) <i>Skill Area</i>	<b>Logistics/Technical Administration</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain hazardous material (HAZMAT)
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Contents of the Hazardous Material Users Guide (HMUG)</li> <li>• Procedures for handling and storage of HAZMAT</li> <li>• Requirements for labeling HAZMAT</li> <li>• Inspection requirements for HAZMAT</li> <li>• Disposal procedures for HAZMAT</li> <li>• Use and contents of Material Safety Data Sheets (MSDS)</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Applicable maintenance instruction manuals (MIMs)</li> <li>• Naval Aviation Maintenance Program (NAMP), Volume V, Chapter 20 (OPNAVINST 4790.2)</li> <li>• Hazardous Material Users Guide (HMUG), Groups 1 through 7, 9, 11, and 12</li> <li>• Navy Occupational Safety and Health (NAVOSH) Program Manual for Forces Afloat, Volume I, Chapter B3 (OPNAVINST 5100.19)</li> <li>• Navy Occupational Safety and Health Program Manual, Chapter 7 (OPNAVINST 5100.23)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the HAZMAT program. Questions will be of a general nature. You also will be questioned about the use, storage, disposal, labeling, and inspection requirements of HAZMAT. In addition, you will be questioned on the use and contents of the HMUG.

## Advancement Handbook for AT3(I)

General AT(I) <i>Skill Area</i>	<b>Logistics/Technical Administration</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Initiate a maintenance action form (MAF) by using Naval Aviation Logistics Command Management Information System (NALCOMIS)
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures for using technical manuals, illustrated parts breakdowns (IPBs), supply catalogs, and other documentation to identify parts and assemblies</li> <li>• Definitions of MAF data elements</li> <li>• Packaging requirements for turn-in/storage of parts</li> <li>• Tool control documentation</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Applicable maintenance instruction manuals (MIMs)</li> <li>• Aviation Maintenance Ratings, Chapters 1 through 3 (NAVEDTRA 12017)</li> <li>• Naval Air Systems Command Technical Manual Program, Work Packages 5, 9 through 11 (NAVAIR 00-25-100)</li> <li>• Naval Aviation Maintenance Program (NAMP), Volume I, Chapters 12 and 18 (OPNAVINST 4790.2)</li> <li>• Naval Aviation Maintenance Program (NAMP), Volume III, Chapters 8 and 9 (OPNAVINST 4790.2)</li> <li>• Naval Aviation Maintenance Program (NAMP), Volume V, Chapter 13 (OPNAVINST 4790.2)</li> </ul>



<p><i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:</p>	<p>You can expect questions on initiating a maintenance action form by using NALCOMIS. Questions will be of a general nature or specific to certain kind of maintenance action. You will also be questioned on material identification to include: part numbers, SM&amp;R codes, national stock numbers, and the use of technical manuals. In addition, you will also be questioned on packaging requirements for turn-in of parts to supply and proper tool control documentation.</p>
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## Part 2

### Advancement Handbook for AT2(I)

## Advancement Handbook for AT2(I)

General AT(I) <i>Skill Area</i>	<b>Avionics Systems Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Monitor installation of avionics field changes/modifications to avionics systems
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Technical directive program</li> <li>• Documentation of changes/modifications</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Aviation Maintenance Ratings, Chapter 7 (NAVEDTRA 12017)</li> <li>• Naval Aviation Maintenance Program (NAMP), Volume I, Chapter 10 (OPNAVINST 4790.2)</li> <li>• Naval Aviation Maintenance Program (NAMP), Volume V, Chapters 8 and 11 (OPNAVINST 4790.2)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the technical directive program. Questions will be of a general nature. You will also be questioned on compliance and documentation procedures.

## Advancement Handbook for AT2(I)

General AT(I) <i>Skill Area</i>	<b>Test Equipment</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Monitor test equipment calibration program
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Identification of Metrology Automated System for Uniform Recall and Reporting (MEASURE) formats</li> <li>• Operating parameters and use of test equipment and automatic test equipment (ATE)</li> <li>• Procedures for calibrating test equipment</li> <li>• Procedures for repairing test equipment</li> <li>• Auditing procedures</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Applicable maintenance instruction manuals (MIMs)</li> <li>• Aviation Electronics Technician 2(I), Chapter 11, (NAVEDTRA 12334)</li> <li>• Metrology Automated System for Uniform Recall and Reporting (MEASURE) Users Manual, Appendix J (OPNAV Manual OP43P6)</li> <li>• Naval Aviation Maintenance Program (NAMP), Volume V, Chapters 8 and 19 (OPNAVINST 4790.2)</li> <li>• Navy Electricity and Electronics Training Series, Module 16, Chapters 1 through 6 (NAVEDTRA 172-16-00-98)</li> <li>• Navy Electricity and Electronics Training Series, Module 21, Chapters 1 through 5 (NAVEDTRA 172-21-00-98)</li> </ul>

<p><i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:</p>	<p>You can expect questions about the monitoring of test equipment program. Questions will be of a general nature or specific to a certain policy. You also will be questioned on the use, calibration, and repair of test equipment. In addition, you can expect questions on applicable MEASURE formats as well as questions on procedures and requirements for evaluating the test equipment calibration program.</p>
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## Advancement Handbook for AT2(I)

General AT(I) <i>Skill Area</i>	<b>Quality Assurance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Prepare special reports
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Requirements for preparing reports under the Naval Aviation Maintenance Discrepancy Reporting Program (NAMDRP)</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Aviation Maintenance Ratings, Chapter 6 (NAVEDTRA 12017)</li> <li>• Naval Aviation Maintenance Program (NAMP), Volume V, Chapter 10 (OPNAVINST 4790.2)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on NAMDRP reports. Questions will be of a general nature or specific to certain reporting procedures.

## Advancement Handbook for AT2(I)

General AT(I) <i>Skill Area</i>	<b>Quality Assurance</b>
<i>A skill</i> you are expected to perform from the General Skill Area above:	Perform collateral duty inspections (CDI)
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• CDI certification process</li> <li>• Procedures for receiving/screening inspections</li> <li>• Procedures for performing in-process inspections</li> <li>• Procedures for performing final inspections</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Applicable maintenance instruction manuals (MIMs)</li> <li>• Applicable maintenance requirement cards (MRCs)</li> <li>• Aviation Maintenance Ratings, Chapter 6 (NAVEDTRA 12017)</li> <li>• Naval Aviation Maintenance Program (NAMP), Volume I, Chapter 14 (OPNAVINST 4790.2)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on performing collateral duty inspections. Questions will of a general nature or specific to a certain type of inspection. You also will be questioned on the CDI nomination/certification process, and the issue/control of QA stamps.

## Advancement Handbook for AT2(I)

General AT(I) <i>Skill Area</i>	<b>Logistics/Technical Administration</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Review individual component repair list (ICRL)
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Purpose and scope of ICRL</li> <li>• Procedures for reviewing ICRL</li> <li>• Procedures for updating ICRL</li> <li>• Identification of SM&amp;R and ICRL capability codes</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Applicable maintenance instruction manuals (MIMs)</li> <li>• Aviation Maintenance Ratings, Chapter 3 (NAVEDTRA 12017)</li> <li>• Naval Aviation Maintenance Program (NAMP), Volume I, Chapter 18 (OPNAVINST 4790.2)</li> <li>• Naval Aviation Maintenance Program (NAMP), Volume V, Chapter 21 (OPNAVINST 4790.2)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on reviewing the ICRL. Questions will be of a general nature or specific to a certain procedure. You also will be questioned on the purpose, updating procedures, SM&R codes, and ICRL capability codes.



## Advancement Handbook for AT2(I)

General AT(I) <i>Skill Area</i>	<b>Logistics/Technical Administration</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain individual material readiness list (IMRL)
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Purpose and scope of IMRL</li> <li>• Identification of major sections of the IMRL</li> <li>• Procedures/requirements for updating the IMRL</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Aviation Maintenance Ratings, Chapter 3 (NAVEDTRA 12017)</li> <li>• Naval Aviation Maintenance Program (NAMP), Volume I, Chapter 10 (OPNAVINST 4790.2)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on maintaining the IMRL. Questions will be of a general nature or specific to a certain requirement. You also will be questioned on the five major sections of the IMRL and their purposes. In addition you will be questioned on different types of transactions and reporting requirements.

## Part 3

### Advancement Handbook for AT1(I)

## Advancement Handbook for AT1(I)

General AT(I) <i>Skill Area</i>	<b>Mechanical Maintenance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Monitor electronic corrosion control program
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Theory of electronic corrosion</li> <li>• Identification/recognition of types of electronic corrosion</li> <li>• Corrosion prevention and treatment procedures</li> <li>• Emergency procedures</li> <li>• Auditing procedures</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Aircraft Weapons System Cleaning and Corrosion Control, Chapters 1 through 9 and Appendixes A &amp; B (NAVAIR 01-1A-509)</li> <li>• Applicable maintenance instruction manuals (MIMs)</li> <li>• Aviation Maintenance Ratings, Chapter 4 (NAVEDTRA 12017)</li> <li>• Avionic Cleaning and Corrosion Prevention/Control, Chapters 1 through 10 and Appendixes A &amp; B (NAVAIR 16-1-540)</li> <li>• Naval Aviation Maintenance Program (NAMP), Volume I, Chapter 14 (OPNAVINST 4790.2)</li> <li>• Naval Aviation Maintenance Program (NAMP), Volume V, Chapters 8 and 14 (OPNAVINST 4790.2)</li> </ul>

<p><i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:</p>	<p>You can expect questions about the electronic corrosion control program. Questions will be of a general nature or specific to a certain procedure. You will also be questioned on the theory of corrosion, preventative maintenance, and corrosion removal and treatment. In addition, you will be questioned on emergency reclamation procedures and requirements for monitoring the electronic corrosion control program.</p>
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## Advancement Handbook for AT1(I)

General AT(I) <i>Skill Area</i>	<b>Quality Assurance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Monitor foreign object damage (FOD) prevention program
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Purpose and scope of FOD prevention program</li> <li>• Auditing procedures for FOD prevention program</li> <li>• Preparation of Naval Air Maintenance Discrepancy Reporting Program (NAMDRP) reports</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Aviation Maintenance Ratings, Chapters 5 and 6 (NAVEDTRA 12017)</li> <li>• Naval Aviation Maintenance Program (NAMP), Volume I, Chapter 14 (OPNAVINST 4790.2)</li> <li>• Naval Aviation Maintenance Program (NAMP), Volume V, Chapters 8, 10, and 12 (OPNAVINST 4790.2)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the monitoring of the FOD prevention program. Questions will be of a general nature or specific to a certain procedure. You will also be questioned on the purpose and scope of the FOD prevention program and proper reporting procedures.

## Advancement Handbook for AT1(I)

General AT(I) <i>Skill Area</i>	<b>Quality Assurance</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform quality assurance representative (QAR) functions
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Concepts of quality assurance (QA)</li> <li>• The QAR qualification process</li> <li>• Procedures for reviewing personnel nominated for Collateral Duty Inspector (CDI), Collateral Duty Quality Assurance Representative (CDQAR), and Quality Assurance Representative (QAR)</li> <li>• Concepts of the Naval Air Maintenance Discrepancy Reports (NAMDRP) program</li> <li>• Procedures for conducting final inspections</li> <li>• Identification of discrepancy trends</li> <li>• Procedures for performing QA audits</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Applicable maintenance instruction manuals (MIMs)</li> <li>• Applicable maintenance requirement cards (MRCs)</li> <li>• Aviation Maintenance Ratings, Chapter 6 (NAVEDTRA 12017)</li> <li>• Naval Aviation Maintenance Program (NAMP), Volume I, Chapter 14 (OPNAVINST 4790.2)</li> <li>• Naval Aviation Maintenance Program (NAMP), Volume V, Chapters 8 and 10 (OPNAVINST 4790.2)</li> </ul>

<p><i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:</p>	<p>You can expect questions on the responsibilities of a QAR. Questions will be of a general nature or specific to a certain task. You will also be questioned on the concepts of the QA program, the CDI, CDQAR, and QAR qualification process, and proper NAMDRP reporting procedures. In addition, you will be questioned on conducting inspections, audits, and analyzing discrepancy trends.</p>
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## Advancement Handbook for AT1(I)

General AT(I) <i>Skill Area</i>	<b>Logistics/Technical Administration</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Monitor the technical directive (TD) program
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• TD numbering and titles</li> <li>• Categories of TDs</li> <li>• Updating methods for TDs</li> <li>• Procedures for monitoring the TD program</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Aviation Maintenance Ratings, Chapters 2 and 7 (NAVEDTRA 12017)</li> <li>• Naval Aviation Maintenance Program (NAMP), Volume I, Chapters 10 and 14 (OPNAVINST 4790.2)</li> <li>• Naval Aviation Maintenance Program (NAMP), Volume V, Chapters 8 and 11 (OPNAVINST 4790.2)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the monitoring of the TD program. Questions will be of a general nature. You will also be questioned on documentation procedures, and the TD titles and numbering system. In addition, you will be questioned on the categories, and updating methods of TDs.



## Advancement Handbook for AT1(I)

General AT(I) <i>Skill Area</i>	<b>Logistics/Technical Administration</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Coordinate dispersed technical publications library (DTPL) functions
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures for maintaining a DTPL</li> <li>• Qualifying factors for outfitting a DTPL</li> <li>• Stamp requirements</li> <li>• Change Entry Certification Record (CECR) usage</li> <li>• Incorporation of changes to manuals</li> <li>• Technical manual numbering system</li> <li>• Auditing procedures</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Aviation Maintenance Ratings, Chapter 2, (NAVEDTRA 12017)</li> <li>• Naval Aviation Maintenance Program (NAMP), Volume I, Chapter 14 (OPNAVINST 4790.2)</li> <li>• Naval Aviation Maintenance Program (NAMP), Volume V, Chapters 8 and 10 (OPNAVINST 4790.2)</li> <li>• Naval Air Systems Command Technical Manual Program, Work Packages 005 00, 007 00, 010 00, 014 00, 015 00, 019 00, and 022 00 (NAVAIR 00-25-100)</li> </ul>

<p><i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:</p>	<p>You can expect questions on DTPL functions. Questions will be of a general nature or specific to a certain requirement. You also will be questioned on initial outfitting of a DTPL, central technical publications library stamp requirements, and the utilization of the change entry certification record (CECR). In addition, you will be asked questions about incorporating changes to technical manuals, the technical manual identification system, and auditing procedures for a DTPL.</p>
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## Advancement Handbook for AT1(I)

General AT(I) <i>Skill Area</i>	<b>Logistics/Technical Administration</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Monitor individual material readiness list (IMRL)
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Purpose and scope of the IMRL</li> <li>• Identification of major sections of the IMRL</li> <li>• Procedures and requirements for updating the IMRL</li> <li>• Tailoring procedures for IMRL items</li> <li>• Inventory requirements</li> <li>• Auditing procedures</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Aviation Maintenance Ratings, Chapter 3 (NAVEDTRA 12017)</li> <li>• Naval Aviation Maintenance Program (NAMP), Volume I, Chapter 10 (OPNAVINST 4790.2)</li> <li>• Naval Aviation Maintenance Program (NAMP), Volume V, Chapters 8 and 10 (OPNAVINST 4790.2)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on monitoring the IMRL program. Questions will be of a general nature or specific to a certain procedure. You will also be questioned on the five major sections of the IMRL and their purposes. In addition, you will be questioned on the types of transactions, tailoring requirements, inventorying procedures, the surveying of items, and auditing procedures.

## Advancement Handbook for AT1(I)

General AT(I) <i>Skill Area</i>	<b>Logistics/Technical Administration</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Monitor the tool control program (TCP)
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Purpose of the TCP</li> <li>• Numbering/etching of tools and containers</li> <li>• Silhouetting of tools</li> <li>• Tool box inventory list requirements</li> <li>• Daily requirements of tool inventories</li> <li>• Missing, broken, and worn tool procedures</li> <li>• Auditing procedures</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Aviation Maintenance Ratings, Chapter 5 (NAVEDTRA 12017)</li> <li>• Naval Aviation Maintenance Program (NAMP), Volume I, Chapter 10 (OPNAVINST 4790.2)</li> <li>• Naval Aviation Maintenance Program (NAMP), Volume V, Chapters 8 and 13 (OPNAVINST 4790.2)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the TCP. Questions will be of a general nature or specific to a certain requirement. You will also be questioned on the purpose of the TCP, numbering and etching of tools and containers, and the silhouetting of tools. In addition, you will be asked questions on tool inventory lists, inventory requirements, missing, broken, and worn tool reporting procedures, and auditing the TCP.

## Advancement Handbook for AT1(I)

General AT(I) <i>Skill Area</i>	<b>Logistics/Technical Administration</b>
<i>A skill</i> you are expected to perform from the General Skill Area above:	Inspect hazardous material (HAZMAT) storage areas
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Contents of the Hazardous Material Information System (HMIS) and Hazardous Material Users Guide (HMUG)</li> <li>• Use and contents of Material Safety Data Sheets (MSDSs)</li> <li>• Procedures for inventory, storage, and disposal of HAZMAT</li> <li>• Inspection requirements of HAZMAT and storage areas</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Applicable maintenance instruction manuals (MIMs)</li> <li>• Naval Aviation Maintenance Program (NAMP), Volume V, Chapter 20 (OPNAVINST 4790.2)</li> <li>• Hazardous Material Users Guide (HMUG), Groups 1 through 7, 9, 11, and 12</li> <li>• Navy Occupational Safety and Health (NAVOSH) Program Manual for Forces Afloat, Volume 1, Chapter B3 (OPNAVINST 5100.19)</li> <li>• Navy Occupational Safety and Health Program Manual, Chapter 7 (OPNAVINST 5100.23)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the HAZMAT program. Questions will be of a general nature or specific to a certain requirement. You also will be questioned about the contents and use of the HMIS, HMUG, and MSDSs. In addition, you will be questioned on proper labeling, storage, and disposal of HAZMAT, along with the inspection requirements.

## Advancement Handbook for AT1(I)

General AT(I) <i>Skill Area</i>	<b>Logistics/Technical Administration</b>
A <i>skill</i> you are expected to perform from the General Skill Area above:	Review maintenance data systems (MDS) reports
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures for reviewing (MDS) reports</li> <li>• Contents of all Maintenance Data Reports (MDRs)</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Naval Aviation Maintenance Program (NAMP), Volume III, Chapter 3 (OPNAVINST 4790.2)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on reviewing (MDS) reports. Questions will be of a general nature or specific to a certain procedure. You also will be questioned about the contents of these reports and there use.

## Part 4

### Advancement Handbook for ATC(I)

## Advancement Handbook for ATC(I)

General AT(I) <i>Skill Area</i>	<b>Quality Assurance</b>
<i>A skill</i> you are expected to perform from the General Skill Area above:	Audit the quality assurance (QA) program
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> <li>• Procedures for evaluating the QA program</li> <li>• Naval aviation standard operating procedures</li> </ul>
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> <li>• Aviation Maintenance Ratings, Chapters 5 and 6 (NAVEDTRA 12017)</li> <li>• Naval Aviation Maintenance Program (NAMP), Volume I, All Chapters , (OPNAVINST 4790.2)</li> <li>• Naval Aviation Maintenance Program (NAMP), Volume III, All Chapters , (OPNAVINST 4790.2)</li> <li>• Naval Aviation Maintenance Program (NAMP), Volume V, All Chapters , (OPNAVINST 4790.2)</li> </ul>
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on evaluating the QA program. Questions will be of a general nature or specific to a certain requirement. You will also be questioned on all of the programs encompassed by the naval air maintenance program (NAMP).



## Advancement Handbook for ATC(I)

General AT(I) <i>Skill Area</i>	<b>Logistics/Technical Administration</b>
<i>A skill you are expected to perform from the General Skill Area above:</i>	Carry out production control operations
<i>Knowledge you should have to perform this skill:</i>	<ul style="list-style-type: none"> <li>• Responsibilities of production control and the production divisions</li> <li>• Procedures for reviewing computer based management information system equipment status reports</li> <li>• Operating procedures of the Aeronautical Material Screening Unit (AMSU)</li> <li>• Assignment of workload priorities</li> <li>• Assignment of supply project and priority codes</li> <li>• Coordinating awaiting parts (AWP) validation with the Supply Department</li> <li>• Procedures for the screening of logs and records</li> </ul>
<i>References you should study to gain the knowledge you need to perform this skill:</i>	<ul style="list-style-type: none"> <li>• Aviation Maintenance Ratings, Chapter 7 (NAVEDTRA 12017)</li> <li>• Naval Aviation Maintenance Program (NAMP), Volume I, All Chapters , (OPNAVINST 4790.2)</li> <li>• Naval Aviation Maintenance Program (NAMP), Volume III, All Chapters , (OPNAVINST 4790.2)</li> <li>• Naval Aviation Maintenance Program (NAMP), Volume V, All Chapters , (OPNAVINST 4790.2)</li> </ul>

<p><i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:</p>	<p>You can expect questions on production control (PC) operations. Questions will be of a general nature or specific to a certain procedure. You also will be questioned on equipment status reports, operating procedures of AMSU, and assigning work load and supply priority codes. In addition, you will be questioned on AWP requirements, and the screening of logs and records.</p>
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## Appendix A

### References Used in This Advancement Handbook

<b>Rating</b>	<b>Short Title</b>	<b>Long Title</b>	<b>Chapters/ Paragraphs</b>	<b>Stocking Point</b>
<b>AT3(I)</b>	HMUG	Hazardous Materials Users Guide	Introduction Groups 1, through 7 and 9, 11, and 12	Note 3
	NAVAIR 00-25-100	Naval Air Systems Command Technical Manual Program	Work Packages 005, 009, and 011	Note 1
	NAVAIR 01-1A-23	Standard Maintenance Practices Miniature/ Microminiature (2M) Electronics Assembly Repair	Work Packages 005, 006, 007.and 010	Note 1
	NAVAIR 01-1A-505	Installation Practices Aircraft Electric and Electronic Wiring	Work Packages 003 through 027	Note 1
	NAVAIR 01-1A-509	Aircraft Weapons Systems Cleaning and Corrosion Control	Chapters 1 through 9 and Appendixes A and B	Note 1
	NAVAIR 16-1-540	Avionic Cleaning and Corrosion and Corrosion/Prevention	Chapters 1 through 10 and Appendixes A and B	Note 1
	NAVEDTRA 12017	Aviation Maintenance Ratings	Chapters 1 through 5	Note 1
	NAVEDTRA 12329	Aviation Electronics Technician 3	Chapters 1 through 8 and Appendix II	Note 1
	NAVEDTRA 172-01-00-98	Navy Electricity and Electronics Training Series, Module 1	Chapters 1 and 3	Note 1

<b>Rating</b>	<b>Short Title</b>	<b>Long Title</b>	<b>Chapters/ Paragraphs</b>	<b>Stocking Point</b>
<b>AT3(I) (Cont)</b>	NAVEDTRA 172-02-00-98	Navy Electricity and Electronics Training Series, Module 2	Chapters 1 through 5	Note 1
	NAVEDTRA 172-03-00-98	Navy Electricity and Electronics Training Series, Module 3	Chapters 1 through 6	Note 1
	NAVEDTRA 172-04-00-98	Navy Electricity and Electronics Training Series, Module 4	Chapters 1 through 3	Note 1
	NAVEDTRA 172-06-00-98	Navy Electricity and Electronics Training Series, Module 6	Chapters 1 through 3	Note 1
	NAVEDTRA 172-07-00-98	Navy Electricity and Electronics Training Series, Module 7	Chapters 1 through 4	Note 1
	NAVEDTRA 172-08-00-98	Navy Electricity and Electronics Training Series, Module 8	Chapters 1 through 3	Note 1
	NAVEDTRA 172-09-00-98	Navy Electricity and Electronics Training Series, Module 9	Chapters 1 through 4	Note 1
	NAVEDTRA 172-10-00-98	Navy Electricity and Electronics Training Series, Module 10	Chapters 1 through 4	Note 1
	NAVEDTRA 172-11-00-98	Navy Electricity and Electronics Training Series, Module 11	Chapters 1 through 3	Note 1
	NAVEDTRA 172-12-00-98	Navy Electricity and Electronics Training Series, Module 12	Chapters 1 through 3	Note 1
	NAVEDTRA 172-13-00-98	Navy Electricity and Electronics Training Series, Module 13	Chapters 1 through 3	Note 1
	NAVEDTRA 172-14-00-98	Navy Electricity and Electronics Training Series, Module 14	Chapters 1 through 3	Note 1
	NAVEDTRA 172-15-00-98	Navy Electricity and Electronics Training Series, Module 15	Chapters 1 through 4	Note 1
	NAVEDTRA 172-16-00-98	Navy Electricity and Electronics Training Series, Module 16	Chapters 1 through 6	Note 1

<b>Rating</b>	<b>Short Title</b>	<b>Long Title</b>	<b>Chapters/ Paragraphs</b>	<b>Stocking Point</b>
<b>AT3(I) (Cont)</b>	NAVEDTRA 172-17-00-98	Navy Electricity and Electronics Training Series, Module 17	Chapters 1 through 3 and 5	Note 1
	NAVEDTRA 172-18-00-98	Navy Electricity and Electronics Training Series, Module 18	Chapters 1 through 4	Note 1
	NAVEDTRA 172-19-00-98	Navy Electricity and Electronics Training Series, Module 19	Chapter 1	Note 1
	NAVEDTRA 172-20-00-98	Navy Electricity and Electronics Training Series, Module 20	Chapters 1 through 5	Note 1
	NAVEDTRA 172-21-00-98	Navy Electricity and Electronics Training Series, Module 21	Chapters 1 through 5	Note 1
	NAVEDTRA 172-22-00-98	Navy Electricity and Electronics Training Series, Module 22	Chapters 1 through 4	Note 1
	NAVEDTRA 172-23-00-98	Navy Electricity and Electronics Training Series, Module 23	Chapters 1 through 8	Note 1
	NAVEDTRA 172-24-00-98	Navy Electricity and Electronics Training Series, Module 24	Chapters 1 through 3	Note 1
	OPNAVINST 4790.2	Naval Aviation Maintenance Program, Volume I	Chapters 12 and 18	Note 2
	OPNAVINST 4790.2	Naval Aviation Maintenance Program, Volume III	Chapters 8 and 9	Note 2
	OPNAVINST 4790.2	Naval Aviation Maintenance Program, Volume V	Chapters 12 through 14 and 19 through 23	Note 2
	OPNAVINST 5100.19	Naval Occupational Safety and Health (NAVOSH) Program Manual for Forces Afloat Volume I	Chapter B3	Note 2
	OPNAVINST 5100.23	Naval Occupational Safety and Health Program Manual	Chapter 7	Note 2

<b>Rating</b>	<b>Short Title</b>	<b>Long Title</b>	<b>Chapters/ Paragraphs</b>	<b>Stocking Point</b>
<b>AT3(I) (Cont)</b>	OPNAV Manual OP43P6	Metrology Automated System for Uniform Recall and Reporting (MEASURE) Users Manual	Appendix J	Note 1
<b>AT2(I)</b>	NAVEDTRA 12017	Aviation Maintenance Ratings	Chapters 3, 6, & 7	Note 1
	NAVEDTRA 12334	Aviation Electronics Technician 2(I)	All Chapters	Note 1
	NAVEDTRA 172-16-00-98	Navy Electricity and Electronics Training Series, Module 16	Chapters 1 through 6	Note 1
	NAVEDTRA 172-21-00-98	Navy Electricity and Electronics Training Series, Module 21	Chapters 1 through 5	Note 1
	OPNAVINST 4790.2	Naval Aviation Maintenance Program, Volume I	Chapters 10,14, and 18	Note 2
	OPNAVINST 4790.2	Naval Aviation Maintenance Program, Volume V	Chapters 8,10, 11, 19, and 21	Note 2
	OPNAV Manual OP43P6	Metrology Automated System for Uniform Recall and Reporting (MEASURE) Users Manual	Appendix J	Note 1
<b>AT1(I)</b>	HMUG	Hazardous Materials Users Guide	Introduction Groups 1, through 7 and 9, 11, and 12	Note 3
	NAVAIR 00-25-100	Naval Air Systems Command Technical Manual Program	Work Packages 005, 007, 010, 014, 015, 019, and 022	Note 1
	NAVAIR 01-1A-509	Aircraft Weapons Systems Cleaning and Corrosion Control	Chapters 1 through 9 and Appendixes A and B	Note 1

<b>Rating</b>	<b>Short Title</b>	<b>Long Title</b>	<b>Chapters/ Paragraphs</b>	<b>Stocking Point</b>
<b>AT1(I) (Cont)</b>	NAVAIR 16-1-540	Avionics Cleaning and Corrosion and Corrosion/Prevention	Chapters 1 through 10 and Appendixes A and B	Note 1
	NAVEDTRA 12017	Aviation Maintenance Ratings	Chapters 2 through 7	Note 1
	OPNAVINST 4790.2	Naval Aviation Maintenance Program, Volume I	Chapters 10 and 14	Note 2
	OPNAVINST 4790.2	Naval Aviation Maintenance Program, Volume III	Chapter 3	Note 2
	OPNAVINST 4790.2	Naval Aviation Maintenance Program, Volume V	Chapters 8, 10 through 14, and 20	Note 2
	OPNAVINST 5100.19	Naval Occupational Safety and Health (NAVOSH) Program Manual for Forces Afloat Volume I	Chapter B3	Note 2
	OPNAVINST 5100.23	Naval Occupational Safety and Health Program Manual	Chapter 7	Note 2
<b>ATC(I)</b>	NAVEDTRA 12017	Aviation Maintenance Ratings	Chapters 5 through 7	Note 1
	OPNAVINST 4790.2	Naval Aviation Maintenance Program, Volume I	All Chapters	Note 2
	OPNAVINST 4790.2	Naval Aviation Maintenance Program, Volume III	All Chapters	Note 2
	OPNAVINST 4790.2	Naval Aviation Maintenance Program, Volume V	All Chapters	Note 2

**LEGEND:**

Note 1 - To order, MILSTRIP to NAVICP PHILA or via INTERNET -  
<http://www.nll.navsup.navy.mil/>

Note 2 - INTERNET - <http://neds.nebt.daps.mil/>

Note 3 - HMC&M/HMIS CD-ROM

Letter request to:  
Commanding Officer  
ATTN: CD-ROM Team, Code N9113  
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